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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/706,350	11/03/2000	James F. Bredt	Z00837006 GSE	6314

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EXAMINER

MAKI, STEVEN D

ART UNIT PAPER NUMBER

1733

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/706,350		BREDT ET AL.	
	Examiner		Art Unit	
	Steven D. Maki		1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11,21-42,55-60,73-77,85-105,112 and 115-124 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-11,21-42,55-60,73-77,85-105 and 115-124 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: _____ |

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- 1) This application contains claims directed to the following patentably distinct species of the claimed invention:

method of three dimensional printing

species A - method of three dimensional printing using a first reactive component in fluid and a second reactive component in particulate material

(described as general class one at specification page 7 lines 9-11, described at specification page 9 line 14 to page 16 line 2, and apparently defined in claims 1-11, 21-42, 55-60, 112, 115-122);

species B - method of three dimensional printing using two reactive components dispensed as a fluid (described as general class two at specification page 7 line 11, described at page 16 line 3 to page 18 line 24, and apparently defined in claims 73-77 and 123);

species C - method of three dimensional printing using two reactive particulate components in which a dispensing fluid functions to dissolve or disperse the reactants (described as general class three at specification page 7 lines 11-13, described at page 18 line 26 to page 20 line 10, and apparently defined in claims 85-105 and 124).

particulate material

species #1 - particulate material comprising a cationic reactant selected from the group described at specification page 10 line 14-20 (apparently defined in claims 9 and 91);

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species # 2 - particulate material comprising anionic reactant selected from the group described at specification page 10 lines 20-30 (apparently defined in claims 11, 40 and 93);

species # 3 - particulate material comprising metal reactant selected from the group consisting of iron, copper, carbon steel, stainless steel, aluminum, brass, molybdenum, tungsten, magnesium and cobalt (apparently defined in claims 27 and 103);

species #4 - particulate material comprising ceramic oxide reactant selected from the group consisting of alumina, anatase, silicon dioxide, aluminum silicate and glass (apparently defined in claims 28 and 104);

species #5 - particulate material comprising mineral reactant selected from the group consisting of limestone, magnetite, calcium silicate, hydrous calcium sulfate, hydrated lime and calcium phosphate (apparently defined in claims 29 and 105);

species #6 - particulate material comprising an initiator selected from the group described at specification page 14 lines 17-23 (apparently defined in claim 35) -

species #7 - particulate material comprising polyol group (apparently defined in claim 37);

species #8 - particulate material used to form adhesive / used as an adhesive comprising octacrylamide / acrylates / butylaminoethylmethacrylate (apparently defined in claims 56 and 74);

species # 9- particulate reactant used to form adhesive comprising sodium carbonate or potassium aluminum sulfate (apparently defined in claim 59)

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species of the method for three dimensional printing (one of species A-C) and a single disclosed species of the particulate material (one of species #1-#9) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.¹ Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over

¹ If applicant elects species C and either species #1 or species #2, then both species #1 and #2 would be examined with species C (In species C, #1 and #2 are subcombinations usable together instead of species).

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the prior art, the evidence or admission may be used in a rejection under 35

U.S.C. 103(a) of the other invention.

2) **Rejoinder of some or all of the species will be considered upon indication of allowable subject matter depending on the basis thereof.**

3) A telephone call was made to Gary Engleson on 4-4-03 to request an oral election to the above restriction requirement, but did not result in an election being made.

4) Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5) Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

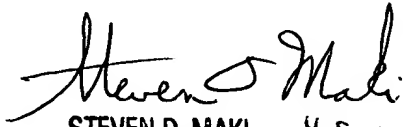
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
April 8, 2003


STEVEN D. MAKI 4-8-03
PRIMARY EXAMINER
~~GROUP 1300~~
A-1733